SOME HINTS ON SHIPPING LIVING SPIDERS
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For several years now I have been sending and receiving arachnids from around the world. While the following discussion will be primarily based on experiences with spiders, it should serve as a guide to those shipping any softbodied terrestrial invertebrate. Before sending any specimens you should determine several things. First, is the shipment going to be legal. If you are shipping within your country there should be little problem. Shipping to foreign countries can be difficult if not impossible. If the animal to be shipped is protected by laws in either the sending or receiving ports proper documents must be obtained. Likewise, some carriers will not accept poisonous or perishable items. Those shipping insects will have to check on plant pest regulations. Once you are certain the shipment will be legal you should consider the length of time the animal can survive without food or water and the possibility of extremes in temperatures. While insulated containers (like those used to ship tropical fish) will protect your specimens from sudden changes in temperature they will not protect the contents from long exposures to cold or heat. In fact, the insulation will retain the extreme heat or cold long after the parcel is removed to more favorable conditions. I generally try to ship during mild seasons in packages with little insulation. This can be tricky when shipping specimens to or from regions on opposite sides of the equator. Knowing the spiders habitat (tropical forest, cold mountains, etc.) will guide you to the extremes in temperature the animal might survive. Fortunately, most spiders can go for extended periods without food or water when in favorable environment. Many spiders can travel for weeks with no harm. I have noted from shipments received from overseas that postal air mail is only slightly slower than expensive private carriers. Unless postal regulations require otherwise, that form of shipment appears best. Registering or certifying parcels can slow them. Most countries require such parcels to be strictly controlled with signatures being taken each postal port. Such controls are useful in reducing the risk of loss but much time can be lost.
Some carriers require special shipping containers. It is best to contact the carrier before arriving at the shipping port to find the specimens have to be repackaged.

Like any parcel, it is a good idea to label the contents (on each individual container) with the address of the recipient. If the parcel is then torn open, spilling its contents, the various vials or smaller boxes can be correctly identified and sent on their way. While most spiders are not medically important, it is important to label the vials with a notice that living spiders are enclosed. A customs or postal inspector will certainly not appreciate a unexpected spider jumping out of a vial during an inspection. Be truthful in labeling the customs declarations on the outside of the parcel. Improperly labeled parcels can be seized and held until damage has been done to the contents. There are also penalties for incorrect declarations.

Some spiders travel better than others. Spiders with large abdomens tend to be more difficult to ship. Best results will be had by placing the spider in a plastic container in which you have placed soft tissue. Tissue should be placed all around the spider so that it is cushioned on all sides. A spider can be thrown against the side of the vial (during rough carrier handling) and damaged if not cushioned. Even spiders within webs spun on the sides of containers can be killed if they fall from the webbing during rough handling. Even large-bodied females can be safely shipped if held almost immobile in a coat of tissues. Although it probably goes without saying, most spiders are aggressive and will eat each other if placed in a vial together.

Some shippers use moss or other plant material for cushioning the animals. This is often very effective but potentially a problem. Shipments of plant material and soils are more strictly regulated. An otherwise legal shipment can be seized for violation of plant quarantine laws.
Once the spider is safely coated in tissue, a few drops of water should be added to the tissue. The correct moisture is so that the tissue is just moist, not damp. A tissue with too much water will either drown the spider or the weight of the water will cause the tissue to bunch up and crush the spider during any rough handling from the carrier. Even desert spiders will need a moist atmosphere during travel so that they will not desiccate. Free water for drinking is not needed.

A few small holes can be placed in the sides of the container for an exchange of air (a pin heated over a flame can be used to melt a small hole in plastic vials). Care must be exercised not to make the holes large enough for spiders to escape. Some spiders can squeezed through rather small openings. Also, be aware that egg sacs can hatch during transit (especially if the service is slow) and the spiderlings can escape through large holes in the container. Some loss of water will occur through these holes but generally this will not matter unless the holes are large. If concerned, the shipping vials can be tested for moisture loss before shipping.

Simply prepare the vial as per shipping (minus the spider) and set aside for the anticipated shipping period. After the time has elapsed, check the moisture remaining in the vial and adjust your methodology accordingly. The lids should be securely attached and taped so there is no way that they can come open during travel.

Experience has show that containers only slightly larger than the spiders are best. This not only reduces the mobility of the spider but it also cuts the weight and shipping cost of the parcel.

The properly packed vials are then placed inside of larger box. Like the spider, the vials should be cushioned inside of the box so that they do not roll around. Although the effectiveness has not tested, some shippers place small holes in the outer box. Thus allowing an exchange of gases. Using a small but sturdy outer box will reduce weigh and shipping cost.
I have received shipments from several individuals where the vials of spiders are placed in a plastic bag or box filled with wet tissue or other vials containing wet materials. The idea is that the moist air within the bag will enter the vials via the small vent holes. Often this method results in water entering the vials and it greatly increases the weight of the parcel.

I, like many others, would like to hear of other methods for safely shipping living fragile materials. Even notes on what not to do might save a future shipment of valuable specimens.

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